

FERTILIZER AND MANUFACTURING METHOD OF THE FERTILIZER

ABSTRACT OF THE DISCLOSURE

A fertilizer with silica hydrogel as a main component in which the amount of water to be desorbed in accordance with the passage of time is less than in conventional fertilizers. The fertilizer is prepared using silica hydrogel obtained by reacting an alkali silicate solution and a mineral acid, and performing one of the following treatments: (1) Aging under the conditions of a pH range of pH4-8 and a temperature range of 40-100°C. (2) Aging under the conditions of a pH range of pH6-8 and a temperature range of 60-85°C. (3) Aging under the conditions of a pH range of pH4-8 and a temperature range of 40-100°C, and then changing the pH range to pH2-6. (4) Contacting with a solution containing one or more kinds of ions selected from the group consisting of iron ions, magnesium ions, calcium ions, aluminum ions and ammonia ions.